

REMARKS

Claims 1-13 are all the claims pending in the application. This Amendment amends claims 1-10, adds claims 11-13, and addresses each point of objection and rejection raised by the Examiner. Favorable reconsideration is respectfully requested.

I. Formal Matters

Applicant thanks the Examiner for initialing the references listed on form PTO-1449 submitted with the Information Disclosure Statements filed on April 4, 2001, April 9, 2003, June 13, 2003, and August 6, 2003.

Applicant calls the Examiner's attention to the Information Disclosure Statement filed **October 30, 2003**. Applicant respectfully requests an initialed copy of the Form PTO-1449 to confirm that the Examiner has considered the listed documents.

Additionally, Applicant thanks the Examiner for acknowledging the claim to foreign priority under 35 U.S.C. § 119 and for confirming that the certified copies of the priority documents have been received.

II. Preliminary Matters

Applicant has amended claims 1-10 for grammatical clarity. Applicant submits that such amendments were not made in response to any prior art rejection, that such amendments do not narrow the scope of the claims and, therefore, that such amendments do not subject the claims to prosecution history estoppel.

III. Claims

A. Claim Objections.

Claims 4 and 9 are objected to under 37 C.F.R. § 1.75(c) as being in improper form. To obviate the objection, claims 4 and 9 have been amended to include the limitations of claims 3 and 8 respectively, thereby eliminating reference to different claim sets. Applicant respectfully requests reconsideration and withdrawal of the objection.

Additionally, although the dependency of claim 4 from claims 1 or 2, and claim 9 from claims 6 or 7 was proper (*see* MPEP 608.01(n) - “Acceptable Multiple Dependent Claim Wording”), as an editorial matter, applicant amends claims 4 and 9 to eliminate multiple dependency. Specifically, Applicant amends claim 4 to depend from claim 1, amends claim 9 to depend from claim 6, adds new claim 11 to depend from claim 2, and adds new claim 12 to depend from claim 7.

B. Rejections under § 102.

Claims 1, 2, 4-7, 9, and 10 stand rejected under 35 U.S.C. § 102(e) as allegedly anticipated by Yamada (U.S. Patent No. 6,091,655, hereinafter “Yamada”). Applicant traverses the rejections for the following reasons.

Claims 1, 2, and 4: To be anticipated under 35 U.S.C. § 102, the reference must disclose every element of the Applicant’s claims. However, Yamada fails to disclose at least the following limitations:

Claim 1: A reference potential setup circuit part for setting up a potential assigned from outside of the device as a potential of the reference signal.

According to Yamada, the potential is assigned from inside of the device. The memory cell of the second memory cell group stores information equivalent to a reference potential (*see*, col. 4, ln. 57-59, Yamada). Finally the read circuit reads the information stored in the memory cell for forwarding to the other differential input terminals of the sense amplifiers (*see*, col. 4, ln. 62-65, Yamada). By contrast, the semiconductor memory device of the claimed invention has a reference potential setup circuit part for set up potential assigned from outside of the device.

More specifically, in the claimed invention the reference potential on the bit line is set up externally, by the reference potential setup circuit. Setting the bit line voltage to a particular level based on external voltage does not correlate to assigning potential from inside of the device.

Therefore, Applicant respectfully submits that the reference cited above by the Examiner fails to teach or suggest all of the claim limitations as set forth in the present invention. Therefore, claim 1 should be allowed. Since claims 2 and 4 depend from claim 1, and since the Yamada reference does not disclose all of the limitations of claim 1, Applicant submits that claims 2 and 4 are patentable at least by virtue of their dependency from claim 1. Accordingly, Applicant respectfully requests that the rejections of claims 1, 2, and 4 under 35 U.S.C. § 102(e) be reconsidered and withdrawn.

Claim 5: Yamada fails to disclose at least the following limitations:

Claim 5: setting up a potential assigned from outside of the device as potential of the reference signal.

The reference potential setup circuit of the claimed invention does not exist in Yamada because as discussed above, the memory cell of the second memory cell group stores information equivalent to a reference potential (*see*, col. 4, ln. 57-59, Yamada). Therefore, the potential in Yamada isn't assigned from outside. Finally the read circuit reads the information stored in the memory cell for forwarding to the other differential input terminals of the sense amplifiers (*see*, col. 4, ln. 62-65, Yamada). Also, the method of setting up potential of the reference signal by the reference potential setup circuit part as claimed can't be in Yamada because as discussed above, the reference potential setup circuit of Yamada works with potential assigned from inside and not outside as in the claimed invention.

Applicant respectfully submits that the reference cited above by the Examiner fails to teach or suggest all of the claim limitations as set forth in the present invention. Therefore, claim 5 should be allowed.

Claims 6, 7, 9 and 10: Yamada fails to disclose at least the following limitations:

Claim 6: A signal hold circuit for taking and holding data signal read out to the bit-line.

Claim 10 recites similar features.

The signal hold circuit holds the fine-hold analog voltage values. In comparison, as shown in Figs. 4 and 5 of Yamada, probe circuits PRB1 and PRB2 transmit the bit line (bit 1, bit 2, etc.) data to the global bit line (Gbit1, Gbit2, etc.). However, the probe circuits disclosed in Yamada do not transmit bit line data in fine-hold status as shown in Fig. 6 of Yamada. Rather, the voltage of bit1 is not equal to Gbit1, and the voltage of bit2 is not equal to Gbit2. Reconsideration is requested.

C. Rejections under § 103.

Claims 3 and 8 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamada. Applicant traverses these rejections because Yamada fails to disclose or suggest all of the claim limitations. Specifically, at least the following limitations are not disclosed or suggested.

Claim 3: a reference potential setup circuit part for setting up a potential assigned from outside of the device as a potential of the reference signal a statistical process part for statistically processing the value of the potential stored in the storage part.

Claim 3: The Examiner asserts that Yamada discloses all of the features of the claimed invention except for a statistical process for statistically processing the value of potential. However, the Examiner asserts that it would have been obvious to a person skilled in the art to provide a statistical process included in the potential reference memory to guarantee accurate operations. However, as discussed above, the potential of Yamada is not assigned from outside the device as in the claimed invention, but from inside of the device. Therefore, the reference

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potential setup circuit of claim 3, does not exist in Yamada and the statistical process of the claimed invention would be directed towards different operations. Consequently, Applicant respectfully requests that the rejection of claim 3 under 35 U.S.C. § 103(a) be reconsidered and withdrawn.

Claim 8: As discussed above, Yamada does not disclose a signal hold circuit. As a result, the statistical process of the invention of claim 8 is necessarily different from that of Yamada, and not otherwise suggested. Reconsideration is requested.

IV. New Claims

In addition to claims 11 and 12 discussed above, Applicant adds new claim 13 to depend from claim 7. No new matter is added. Entry and consideration are requested.

V. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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Respectfully submitted,



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23373

CUSTOMER NUMBER

Date: February 24, 2004